

Abstract of the Disclosure

To provide a method for recovering carbon dioxide, in which thermal energy for regenerating a CO₂ absorbing solution and power for compressing the recovered CO₂ are supplied, and high thermal efficiency is achieved, and a system therefor. A system for recovering carbon dioxide including a high pressure turbine 3, an intermediate pressure turbine 7, and a low pressure turbine 8; a boiler 1 for generating steam for driving the turbines; an absorption tower 18 filled with a CO₂ absorbing solution for absorbing and removing CO₂ from combustion exhaust gas of the boiler; a regeneration tower 24 for regenerating the absorbing solution having absorbed CO₂; a compressor 42 for compressing the removed CO₂; a turbine 41 for a compressor, which is driven by some of the exhaust steam of the high pressure turbine; turbines 51 and 52 for auxiliary machinery, which are driven by some of the exhaust steam of the intermediate pressure turbine; and supply pipes 45 and 55 for supplying exhaust steam of the compressor turbine and the auxiliary machinery turbines to a reboiler 30 of the regeneration tower as a heating source.